1

Effect of a nuclease-resistant derivative of polyriboinosinic-polyribocytidylic acid complex on yellow fever in rhesus monkeys (Macaca mulatta).

Stephen EL, Sammons ML, Pannier WL, Baron S, Spertzel RO, Levy HB.
J Infect Dis. 1977 Jul;136(1):122-6.

Rhesus monkeys (Macaca mulatta) treated with a newly developed nuclease-resistant complex of polyriboinosinic-polyribocytidylic acid, poly-L-lysine, and carboxymethylcellulose [poly (ICLC)] did not die after challenge with virulent Asibi strain yellow fever (YF) virus. The strain of virus is sensitive to the effects of interferon in vitro and is lethal for rhesus monkeys four to six days after subcutaneous administration of 1,000 plaque-forming units of the virus. The mortality rate was reduced in monkeys initially treated 8 hr before or after inoculation of virus but was unchanged in monkeys initially treated 24 hr after challenge. Treated monkeys developed neutralizing antibody to YF virus. The successful treatment of yellow fever in a primate model with use of poly (ICLC) suggests a meaningful role for the interferon system in the host defense against this viral infection.